

REMARKS:

i) Claims 1, 2, 5-12, 14, 15, 17-23, 35-37, 39-45, 47-50, and 52-53 stand rejected under 35 USC §112, first paragraph, for reciting structure beyond the scope of the specification. Specifically independent claims 1 and 35 recite sealing member (9) as being attached to the cell wall (10). The Examiner has stated that this is deemed new matter.

As the Examiner had previously considered that applicants' sealing member (9) did not distinguish the present invention over the cited prior art, the subject limitation (element) of claim 1 has been amended to recite:

"f) a cell wall (10) exposed at the exit of an electrolysis region having an opening for the conveying path said opening having sealing members to prevent liquid escape with the work pieces passing by".

Similarly, the last element of claim 35 has been amended to recite:

"a cell wall (10) exposed at the exit of an electrolysis region having an opening for the conveying path said opening having sealing members to prevent liquid escape with the work pieces passing by".

ii) The standing 35 USC §112, first paragraph rejection of the above-identified claims should now be overcome. Claims 1, 2, 5-12, 14, 15, 17-23, and 48- 50 and 52-53 should therefore now be in condition for allowance.

iii) Claims 35-37, 39-45 and 47 stand rejected under 35 USC §103(a) as obvious in view of Hartmann et al. (US 5425862) when read with either Cooke et al. (US 3359190) or Cooke et al. (US 3535222).

Previously, applicants have argued that their layer of isolation material (13) distinguished the present invention over Hartmann who teaches a central tampon (66, 67) at the mid-way point of his electrolysis chamber (6) to support his conveyed film (1) from buckling. These two central tampons (66, 67) fill the entire distance between the Hartmann upper and lower anode electrodes (24, 25). Applicants argued that a support as taught by

Hartmann does not obviate an isolation layer (13) as disclosed and claimed in the present invention.

The Examiner must accept that applicants' layer electrically isolates their conveyed work pieces (1) from electrically contacting the face of their anodes (4). The Examiner must accept that while both applicants' isolation layer and Hartmann's tampons are each ion permeable, that permeability must deviate/amend the electrolysis in that region from the region where there is no material. Simply put ion migration through a tampon does not occur at the same rate as ion migration where there is no tampon material.

Applicants have a thin isolation layer (13) over the entirety of each of their anodes. Thus, they have uniformly structured device and can calculate the factors for their electrolysis process as the work pieces (1) travel through a processing module (M). The structure of their device is "linear".

The structure of the Hartmann chamber is not linear. The Hartmann tampons are thick, but not very long, and positioned only at the mid-point of the chamber. If one of ordinary skill in the art were to extend the Hartmann tampons over the entire region of the Hartmann electrolysis chamber (6), such individual would have to recalculate the factors for the process as the conveyed film (1) passes through the Hartmann chamber (6). As ions cannot migrate through the tampon material as easily as they do through the electrolyte fluid without tampons, the conveyor speed, the voltage, current and even the electrolyte density would have to be recalculated for the Hartmann chamber (6), if the tampon material were increased to fill the entire chamber (6), as suggested by the Examiner. The Hartmann process would have to be redesigned. This is a disincentive for one of ordinary skill in the art to modify the Hartmann chamber as suggested by the Examiner.

Regardless, the Examiner's recent remarks comment that a *contact electrode washing station disposed adjacent to a contacting electrode* is not taught in the prior art. Therefore, claim 35 has been amended to recite this limitation.

- iv) Claim 35 has also been amended to modify the language on the isolation layer.

Claim 35 as now amended recites:

A device for electrolytically treating electrically conductive structures (S) on surfaces of work pieces (1) the electrically conductive structures (S) being electrically insulated from each other and continuously conveyed on a conveying path and in a direction of transport with the structures being electrolytically treated, said device comprising:

at least one electrolysis region (2,3) formed by cell walls (10) and holding a processing liquid and having at least one counter electrode (4), whereof each counter electrode (4) and the work pieces (1) are in contact with the processing liquid;

at least one electrode (6, 14) being in electrical contact with the work pieces (1), the electrode (6,14) being outside of the electrolysis region and not in contact with the processing liquid;

at least one layer of isolation material (13) extending between a respective counter electrode (4) and the conveying path of the work pieces (1);

a contacting electrode washing station disposed adjacent to a contacting electrode (6, 14) from which said contacting electrode (6, 14) is washed or sprayed;

wherein each counter electrode (4) extends parallel to the conveying path of the work pieces (1) throughout the entire electrolysis region (2,3);

wherein the two respective contacting electrodes (6, 14) are positioned with at least one of them being disposed on one side of the electrolysis region and the at least other one on the other side of the electrolysis region,

wherein the electrically conductive structures on the work pieces (1) are in constant electrical contact with one of the contacting electrodes (6, 14) while in each electrolysis region, and

a cell wall (10) exposed at the exit of an electrolysis region having an opening for the conveying path said opening having sealing members to prevent liquid escape with the work pieces passing by.

- v) The cited prior art, individually nor in combination, neither teaches nor suggests the structure now recited by claim 35. It is therefore urged, that amended claims 35-37, 39-45 and 47 now distinguish the present invention over the prior art and are allowable.

vi) It is requested that the application be re-examined and passed to issue with the claims presented herein above.

No additional fees are believed to be required. In the event that an additional fee is required with respect to this communication, the Commissioner is hereby authorized to charge any additional fees, or credit any overpayment, to Paul & Paul Deposit Account No. 16-0750. (order no.8169)

Respectfully submitted,  
Paul & Paul

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/john j. simkanich, regis. no. 26036/  
by: John J. Simkanich  
Regis. No. 26,036  
2000 Market Street, Suite 2900  
Philadelphia, PA 19103  
(215) 568-4900  
FAX 215-567-5057

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by: John J. Simkanich

/john j. simkanich, regis. no. 26036/  
(signature)